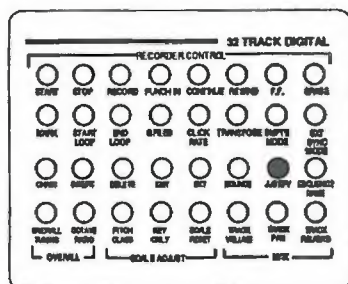


Editing

MR-03-0188

Working with tracks

A track can be moved in relation to the rest of the sequence. One track timbre can be replaced with another, and any track timbre can be recalled to the keyboard.



*justify
panel 2*

Track sliding

Any count-off beats before the first recorded note are memorized as rests in the memory recorder. You can delete these count-off beats or add new ones by adjusting the starting time of each individual track.

- If you use the justified mode, the starting time can be adjusted in beats.
- If you use the unjustified mode, the starting time can be adjusted in fractions of a beat.

To adjust the starting time of an individual track:

1. Select justified mode, if desired, by pressing justify twice so that it is lit.
2. Press and hold the track select button of the selected track.

The display window shows

[number] BEATS

This is the exact beat at which the first note on the track starts.

3. Continue to hold down the track select button while you turn the control knob to the right or left.

When the justify button is not lit, the starting time is adjusted in fractions of a beat. When the justify button is lit, the starting time is adjusted in whole beats. If the track does not start exactly on a beat, any increase or decrease slides the track in whole beats, maintaining its original relationship to the beat.

Bringing a track timbre to the keyboard

You can place a timbre from a recorded track on the keyboard. You need to use this function for editing a track after the keyboard timbre has been changed, for bringing a track timbre to the keyboard, modifying it, and returning it to the track. In addition, you may use it to recall a timbre to the keyboard without knowing the name of the timbre or where in the system it is located.

To bring a track timbre to the keyboard:

1. Press **skt** (select keyboard timbre).

The **skt** button, the track select buttons and the numbered buttons in the timbre/sequence storage panel begin blinking.

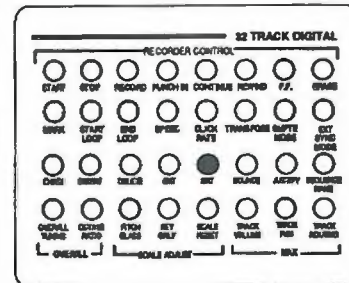
2. Using the track select buttons, select the track containing the desired timbre.

All the blinking buttons go out, and the current keyboard matches the selected track.

If you try to add notes or punch in to a soloed track whose timbre does not match the current keyboard timbre, the following message appears in the display window:

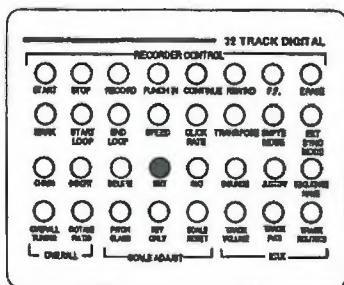
**TIMBRES MUST MATCH
FOR RECORD**

If this should happen, use the **skt** button to place the selected track's timbre on the keyboard. You can then proceed with editing.



skt
panel 2

Working with tracks (con't)



smt
panel 2

Replacing track timbres

The timbres of a sequence can be changed after it has been recorded. You can replace the timbre on a selected track with a timbre from a timbre file, from another track or from the keyboard.

To replace a track timbre with a timbre from a timbre file:

1. Select the Timbre Directory from the Main Menu or Welcome Menu to see the timbres available in the current catalog.

2. Press the **smt** (select memory timbre) button.

The **smt** button lights, and the **track select** buttons blink.

3. Using the **track select** buttons, select the track on which you wish to place the new timbre.

The **track select** buttons remain lit, and the **timbre/sequence storage** buttons begin blinking.

4. Select a timbre from the keyboard control panel using the **bank**, **entry**, and **timbre/sequence storage** buttons.

The numbered **track select** and **timbre/sequence storage** buttons go out, and the new timbre is placed on the selected track.

Replacing track timbres (con't)

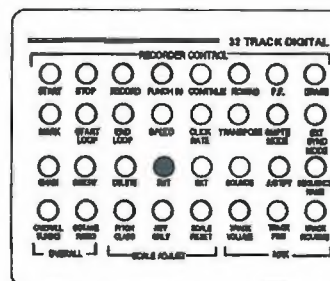
To replace a track timbre with another track timbre, follow these instructions.

1. Press **smt**.

The **smt** button lights and the **track select** buttons begin blinking.

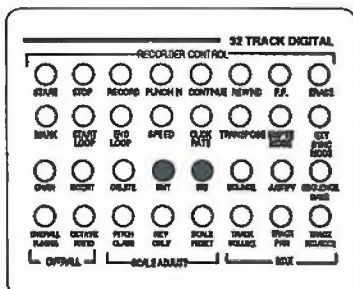
2. Using the **track select** buttons, select the track on which you wish to place the new timbre.
3. Using the **track select** buttons, select the track containing the desired timbre.

The **smt** button and the **track select** buttons go out, and the new timbre is placed on the selected track.



smt
panel 2

Working with tracks (con't)



smt, skt
panel 2

Replacing track timbres (con't)

To replace a track timbre with the current keyboard timbre:

1. Press **smt**.

The **smt** button lights and the **track select** buttons begin blinking.

2. Using the **track select** buttons, select the track on which you wish to place the new timbre.
3. Press **skt**.

The current keyboard timbre is placed on the selected track.

Recalling individual tracks

You can recall individual tracks from any stored sequence into the Memory Recorder without disturbing other tracks.

1. Press and hold the **track select** button for the track you wish to recall.
2. Continue to hold it while you press **sequence** and a **numbered sequence storage** button.

The selected track from the stored sequence is recalled to the Memory Recorder. For example, if you recall track 2 from a stored sequence, it is placed on track 2 in current memory.

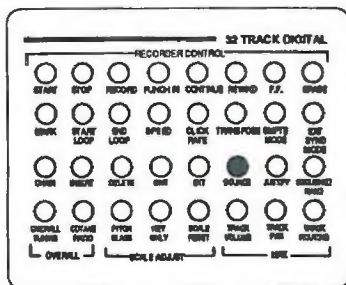
Any information on the selected track is replaced with the information from the recalled track.

All other tracks remain intact.

By recalling selected tracks and changing their starting times, you can combine and append tracks in a variety of ways.

Bouncing tracks

You can place notes from one track to another. You can do this while erasing the originating track, leaving it intact or merging its notes with those of the receiving track.



bounce
panel 2

Moving tracks

To bounce one track to another while erasing the first track:

1. Press **bounce**.

The bounce button lights and the track select buttons begin blinking.

2. Press the originating track select button once.

The track select buttons continue to blink.

3. Press the receiving track select button.

The bounce and the track select buttons go out. The originating track is empty and the receiving track contains all the recorded information from the originating track.

Copying tracks

To bounce one track to another while retaining the original:

1. Press **bounce**.

The **bounce** button lights and the track select buttons begin blinking.

2. Press the originating track select button twice.

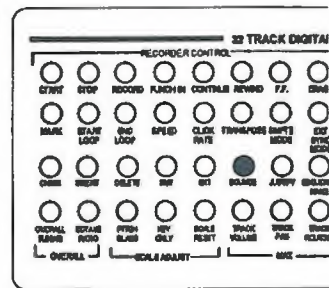
The track select buttons continue to blink.

3. Press the receiving track select button.

The **bounce** button and the track select button go out. The display window shows

[number] NOTES LEFT

The originating track remains intact and the receiving track contains a copy of the originating track information.



*bounce
panel 2*

Bouncing tracks (con't)

Merging tracks

A track may be bounced to a track which already contains notes. In order to do this, both tracks must contain the same timbre. Once tracks are merged, they cannot be separated. Any number of tracks may be merged, subject only to the voice limitations of the system.

Tracks can be "layered" by bouncing the same information to a track two or more times. Each layer uses one or more voices for each note played, making those voices unavailable for other uses. This is an important consideration when using layering techniques.

Real-time effects can be added to an individual track before bouncing. The effects, however, are merged along with the notes. Pitch bend information, for example, affects all notes on the receiving track that sound during the pitch bend wheel movement.

The timbres on the originating and receiving tracks must be exactly the same when you bounce notes from one track to another. If they are not, the display window shows the error message

**TIMBRES MUST MATCH
FOR BOUNCE**

If you try to bounce a very long sequence onto another track, you may run out of memory. If this is the case, the display window will show the error message

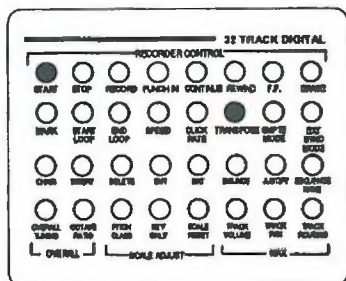
**NOT ENOUGH ROOM
FOR NEW TIMBRE**

Bounce button summary

- Pressing the bounce button causes it to light and all the track select buttons to blink. The next track select button pressed is the originating track.
- Pressing the originating track's track select button once erases the originating track as it bounces.
- Pressing the originating track's track select button twice leaves the originating track intact as it bounces.
- After selecting the originating track, the next track select button selects the receiving track. If the receiving track contains notes, they are merged with the notes from the originating track.
- Pressing the bounce button while the track select buttons are blinking terminates the bounce, leaving all tracks intact.

Transposing a sequence

On the Synclavier, you can transpose a sequence without affecting its speed. You can perform an overall transposition or transpose individual tracks. You can also combine overall and individual transpositions.



*start, transpose
panel 2*

Entering and leaving the transpose mode

To accomplish an overall transposition:

1. Press **transpose**.
2. Press **start** if you want to hear the sequence while transposing.
3. Press a key on the keyboard.

The sequence is transposed.

The transposition is calculated on the basis of the interval between the key on the keyboard you press and middle C.

Thus, pressing E above middle C transposes all notes up a major third; pressing E flat above middle C transposes up a minor third; pressing C below middle C transposes down an octave.

You can return the sequence to its original key by pressing middle C while the transpose button is lit.

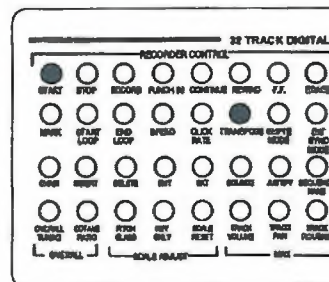
Transposing an individual track

1. Solo the track or tracks to be transposed.
2. Press **transpose**.
3. Press **start** if you want to hear the sequence while transposing.
4. Press a key on the Synclavier keyboard.

The individual track is transposed.

To leave the transpose mode:

- Press the transpose button while it is lit.



*start, transpose
panel 2*

Transposing a sequence (con't)

Transposition order and the effect of transposition on sound file timbres

An overall transposition returns all tracks to their original keys. Therefore, you must perform an overall transposition before performing any individual transpositions. In addition, any individual transpositions following overall transpositions must be calculated from the original key.

For example, if you have transposed a sequence up a major third, and want to transpose an individual track up an octave, you must transpose the individual track up an octave and a third.

Sound files are unchanged by transposition. The effect is exactly the same as playing the keyboard in a different location. When the transposed track uses a keyboard patch, the sound files are not transposed. The timbre responds as it would if you played the keyboard in the new location. If the new location uses a different sound file, that file is used to play the notes.

If the transposition causes any notes to be out of the range of the keyboard or patch definition, the notes will not sound.

- When the **transpose** button is lit, sequences or selected tracks are transposed by pressing a key on the keyboard. When a key is pressed, that key's interval above or below C3 (middle C) determines the interval and direction of the transposition.
- The notes on any track with a lit or blinking button are transposed. If no track buttons are lit, the notes on all tracks are transposed.
- Performing an overall transposition after individual track transpositions causes all tracks to return to their original keys.
- All transpositions are stored with the recorded sequence.

Looping a sequence

A loop tells the Memory Recorder to repeat all or part of a sequence.

Overall loops repeat all tracks;
independent loops repeat sections of individual tracks.

Da capo loops repeat a section from the first note of the sequence to an end-loop point;
dal segno loops repeat a section from a loop start point to a loop end point.

All loops are stored with the sequence.

Creating a loop

You can create a loop while the sequence is stopped from either the keyboard or the terminal; you can create a loop while the sequence is playing from the keyboard only.

When the sequence is stopped, you create a loop from the keyboard in two steps:

1. Set the loop values for start, end and length parameters.
2. Place the loop on the sequence as an overall loop or on a track as an independent loop.

See the section "Editing from the terminal" for instructions on looping from the terminal.

When the sequence is playing, you set the loop values and place the loop in one step.

When you first enter the system, a default set of loop parameter values is set up. These parameters define a loop which starts on measure 1:beat 1 and is 2 measures long.

Setting loop values

The Memory Recorder only requires two pieces of information to create a loop: the time at which the loop starts and the time at which it ends. Sometimes it is easier to think of a loop's length than to think about its end time. For this reason, a set of three interrelated values are available for creating and editing a loop:

- loop start time
- loop end time
- loop length

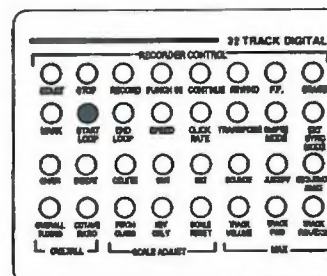
Changing the start or end time changes the length of the loop. Changing the length of the loop changes the end time. You set all loop values using the **start loop** button, located in the second panel.

1. Press the **start loop** button repeatedly to step through the three loop parameters.

If there are no notes in the Memory Recorder, the button lights and the display window shows

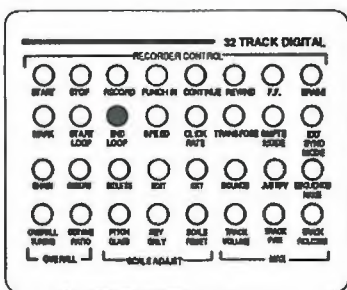
M 0:0
OVERALL LP START

2. Turn the control knob to set the loop start time. When the **justify** button is lit, the loop values change in whole beats. Otherwise the values change in milliseconds.
3. Repeat steps 1 and 2 to set the second loop value.



*start loop
panel 2*

Looping a sequence (con't)



end loop
panel 2

Placing a loop

After loop values have been set, a loop must be placed on the sequence or track. You use the end loop button to place a loop.

To place an overall loop using the current loop values:

- Press the **end loop** button.

The button lights and an overall loop is placed on the sequence. The loop uses the values defined with the **start loop** button.

To place an independent loop using the current loop values:

1. Select the track to contain the loop by pressing and holding one of the **track select** buttons.
2. Press the **end loop** button to place the loop.

The button lights, and the display window indicates the track on which the loop has been placed. When you release the **track select** button, the end loop light goes out. The selected track loops while other tracks continue to play normally. Different tracks can contain loops of different lengths.

If the sequence contains an independent loop, the **end loop** button is lit only when the **track select** button for the track containing the loop is pressed. If the sequence contains an overall loop, the **end loop** button is always lit. All loops are saved with the sequence.

Removing a loop

You remove a loop using the **end loop** button.

To remove an overall loop (the **end loop** button is lit):

- Press the **end loop** button.

The **end loop** button goes out, and the overall loop is removed from the sequence.

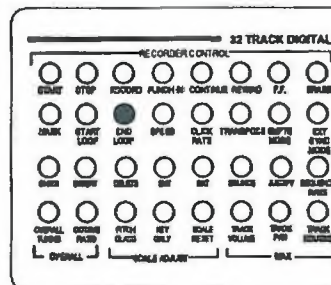
To remove an independent loop:

1. Press and hold the appropriate **track select** button.

The **end loop** button lights.

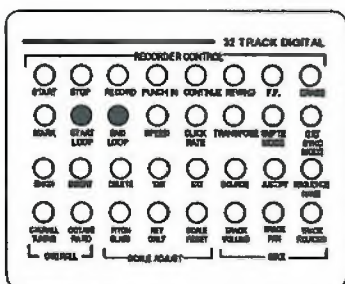
2. Press the **end loop** button.

The **end loop** button goes out, and the independent loop is removed from the track.



*end loop
panel 2*

Looping a sequence (con't)



start loop, end loop
panel 2

Recalling loop values

You can recall the start time, loop length and end time values of existing loops to the **start loop** button at any time.

To recall the values of an existing loop:

1. Press and hold the **start loop** button.
2. If you are recalling the settings of an overall loop, press the **end loop** button. If you are recalling the settings of an independent loop, press the appropriate track select button.

The settings of the selected loop become the current loop settings.

This same method can be used to recall original settings if you have changed the loop values of either an overall or independent loop but have not yet placed the loop.

Changing existing loop values

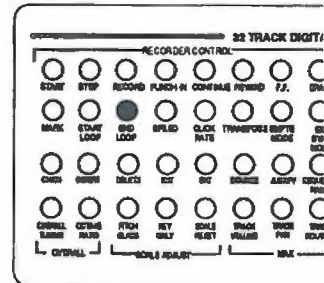
When you change any of the values of an existing loop, the **end loop** button begins blinking. The actual loop in the sequence does not change, only the loop values. In order to hear the new loop, you must place it with the **end loop** button.

1. Press the blinking **end loop** button. If the loop you have changed is an independent loop, you must press and hold the appropriate **track select** button while you do this.

The button goes out, and the existing loop is removed from the sequence.

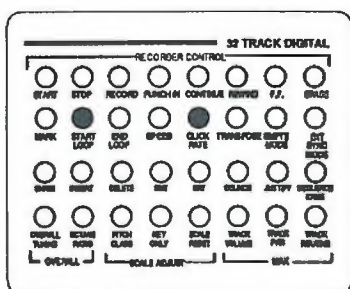
2. Press the **end loop** button again. If the loop you have changed is an independent loop, you must press and hold the appropriate **track select** button while you do this.

The new loop is placed in the sequence.



*end loop
panel 2*

Looping a sequence (con't)



start loop, click rate
panel 2

Changing the display format of loop values

Loop values can be displayed in measures and beats, seconds or SMPTE time code. To change the display format:

1. Press and hold the **start loop** button.
2. Press the **click rate** button repeatedly to step through the three display formats.

Changing the display of loop formats also changes the display of mark points, track start times, and insert and delete lengths.

Creating a loop while the sequence is playing

Loops can be created while a sequence is playing. This is always done from the keyboard. When creating loops in this way, you usually want to enter the justification mode to ensure that there are an integral number of beats in the loop.

It is helpful at times to use the **speed** button and control knob to slow the speed of a sequence in order to place a loop point accurately.

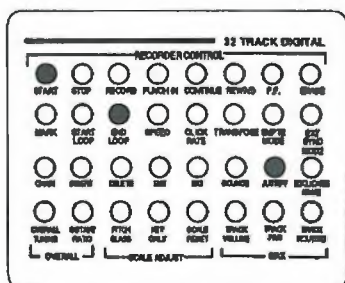
If you solo tracks of a sequence containing an overall loop, the sequence will loop to the first note played on any of the soloed tracks.

If you press the **start loop** button repeatedly, the looping parameters you have created appear in the display window. These parameters can then be edited using the control knob. You must stop the Memory Recorder before attempting to place a loop using the new parameters, however. If you press **end loop** while the sequence is playing, you simply create a new overall loop.

When you place an independent loop, the **end loop** button does not remain lit when the **track select** button is released. The **end loop** button lights up whenever you press the **track select** button, indicating that the track contains a loop.

When you place an independent loop, the solo function works normally. You may need to press a **track select** button twice before holding it in order to hear the desired tracks.

Looping a sequence (con't)



start, end loop, justify
panel 2

Creating a da capo loop while the sequence is playing

When you place a da capo loop on a sequence or track while the sequence is playing, you create the loop in one step. In other words, you set the loop parameters and place the loop at the same time. In a da capo loop, the loop start time is always the first note of a track or sequence, so you are really only setting an end time.

You can place independent loops on individual tracks while a sequence is playing. One track loops while the others continue to play normally. Different tracks can contain loops of different lengths.

To create an overall or independent da capo loop while the sequence is playing:

1. If desired, press justify to enter the justify mode to maintain an integral number of beats.
2. Press start to play back the sequence.
3. To create an overall loop, go to the next step. To create an independent loop, press and hold the track select button of the track on which you want to place the loop.
4. Press end loop at the desired end-loop point.

The end loop button lights. If the justify mode is active, the end-loop point is justified to the nearest beat. If the justify mode is not active, the sequence or track plays to the exact point at which the end loop button was pressed. In either case, the memory recorder loops to the beginning of the sequence or track.

Creating a dal segno loop while the sequence is playing

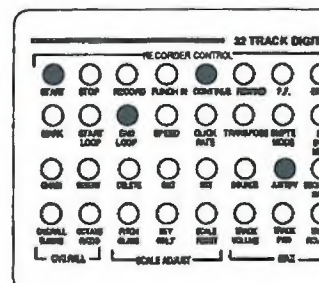
A dal segno loop is any loop that returns to a point in the sequence other than the first note.

1. If desired, press **justify** to enter the justify mode to maintain an integral number of beats.
2. Press **start** to play back the sequence.
3. Press the **continue** button twice to create the dal segno or loop start point.

When you press the **continue** button the first time, the button lights and the Memory Recorder is ready to accept a loop start point. The second time you press the **continue** button, the light goes out, and the loop start point is set.

4. To create an overall loop, go to the next step. To create an independent loop, press and hold the **track select** button of the track on which you want to place the loop.
5. Press **end loop** at the desired loop end point.

The sequence or track plays from the beginning to the selected loop end point, then loops to the selected loop start point.



*start, continue
end loop, justify
panel 2*

Looping a sequence (con't)

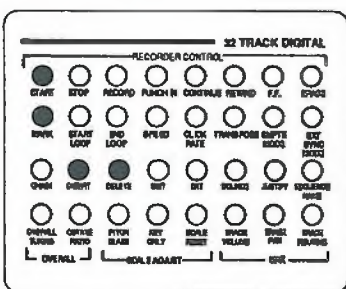
Bouncing looped tracks

When tracks containing loops are bounced, looping information is transferred with the track only if the receiving track is empty. If the receiving track is not empty, the loop from the originating track is not transferred. The timbres of the originating and receiving tracks must match.

- When you first enter the system, a default set of loop parameters defines a loop starting on measure 1:beat 1 which is two measures long.
- To access the three looping parameters, loop start time, loop end time and loop length, press the start loop button repeatedly.
- To place or remove an overall loop, press end loop.
- To place or remove an independent loop, hold a track select button and press end loop. To set the start of a dal segno loop while the sequence is playing, press continue twice. The second time it is pressed, the loop start is defined. The end point is set by pressing endloop.
- To recall overall loop parameters to the start loop button, hold start loop and press end loop.
- To recall independent loop parameters to the start loop button, hold start loop and press a track select button.
- If loop parameters have been changed, the end loop button blinks. Recall the original settings by holding start loop and pressing end loop, or place the new loop as described above.
- When tracks containing loops are bounced, looping information is transferred if the receiving track is empty. If the receiving track is not empty, the loop from the originating track is not transferred.

Inserting and deleting

You can insert a rest or empty space at any point on a track or sequence. You can also delete a section of a track or sequence.



*start, mark,
insert, delete
panel 2*

General procedure

Insert and delete functions are performed in four steps:

1. Mark the point at which you want to insert or delete using the **mark** button.
2. Set the insert length using the **insert** button, or the delete length using the **delete** button.
3. Select the track or tracks on which to perform the insert or delete by soloing the tracks. If no tracks are soloed, the insert or delete is performed on all tracks of the sequence.
4. Perform the insert or delete using the **insert** or **delete** button in combination with the **start** button.

Setting insert and delete values

The values used in performing an insert or delete can be set either in real time while the sequence is playing, or using the control knob while the sequence is stopped. Setting these values has no effect on the sequence; the actual insert or delete is performed as a separate function.

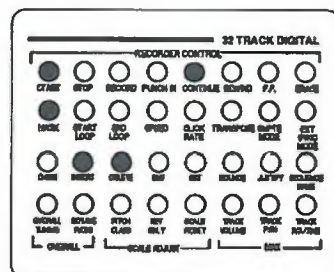
To set insert or delete values while the sequence is playing:

1. Press **start** to play the sequence.
2. Set the mark point by pressing and holding the **mark** button and pressing the **continue** button.
3. Set the length of the insert or delete by pressing and holding the **insert** or **delete** button and pressing the **continue** button.

Instead of a length, you can define an end time for inserting or deleting. For a delete, the section between the mark point and the end time is deleted. For an insert, all recorded information on a track after the defined mark point is "slid" out to the designated end time.

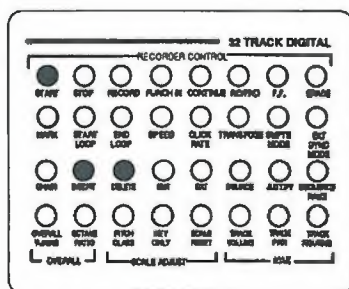
When the sequence is stopped, pressing the **insert** or **delete** button repeatedly toggles the display between length and end time. You can change the mark point, end time or length of the insert or delete using the control knob.

You can set all values for an insert or delete without playing the sequence. Simply press the buttons and use the control knob to set the desired values.



*start, continue, mark,
insert, delete
panel 2*

Inserting and deleting (con't)



*start, insert, delete
panel 2*

Performing an insert or delete

Setting the values for an insert or delete does not actually perform the insert or delete. To perform the insert or delete:

1. Solo the track or tracks on which the insert or delete is to be performed.

If no tracks are soloed, the insert or delete is performed on all tracks of the sequence.

2. Press and hold the insert or delete button.
3. Press start.

The word "Inserting..." or "Deleting..." appears in the display window until the insert or delete is finished; then it is replaced by

[number] NOTES LEFT

Note: After you perform an insert or delete, the on/off status of the mark start feature is the same as it was before you performed the insert or delete. If it is "on", the sequence starts at the beginning point of the insert or delete. It must be set to "off" or to an earlier mark point in order to hear the delete or insert in context.

Undoing and punching out

You can use a combination of insert and delete functions to punch out a section of a track or sequence very precisely.

1. Set the mark point and length or end time as described above.
2. Perform a delete as described above.
3. Perform an insert as described above.

The sequence or track contains an empty space, yet the sequence retains its original length.

You can negate or “undo” an insert simply by performing a delete immediately afterward.

Chaining tracks

The chain function allows you to add the notes from one track onto the end of another track or to itself. It can also be used to “un-wrap” a loop, creating a track which contains all the notes in the loop repeated a specified number of times.

What is chaining?

Any track may be chained to any other track, including itself. When you perform a chain, the notes from the source track are placed at the end of the destination track a specified number of times. The chain function always maintains an integral number of measures.

When you perform the chain, all the notes on the source track beginning with measure 1:beat 1 are placed on the destination track directly after the last measure. If there are any notes in the count-in measure (measure 0) of the source track, that measure becomes the first measure placed on the destination track. If the destination track is empty, the chain is placed on the track so that it begins at measure 1:beat 1. If the destination track is not empty, the chain begins at the measure following the last measure of the track.

You can use chaining to assemble a number of pre-recorded patterns into a complete track, much like the operation of a drum machine.

Basic track chaining

1. Press the **chain** button.

The **chain** button lights, the **track select** buttons begin blinking and the display window shows

[number] REPT

2. Use the control knob to select the number of chain repetitions, or press the **chain** button repeatedly to increment the number.

The number of repetitions selected is the number of times the source track is repeated on the destination track.

3. Select a source track by pressing its **track select** button.

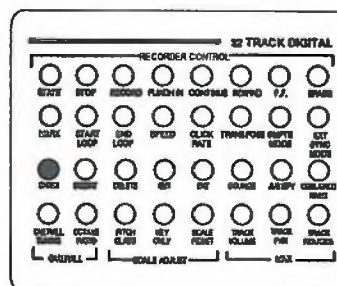
The **track select** buttons remain blinking, waiting for you to select a destination track.

4. Select a destination track by pressing a **track select** button.

All the track buttons go out, and the display window shows

CHAIN #[number]
[number] NOTES LEFT

When chaining is complete, the destination track contains all the notes on the source track repeated as specified by the chain repetition number. The source track remains intact.



chain
panel 2

Chaining tracks (con't)

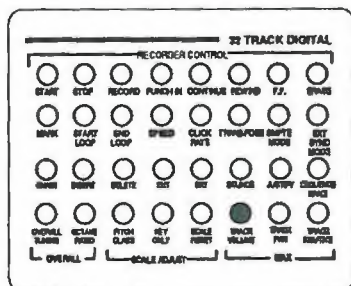
Chaining to and from looped tracks

When a source track contains an independent loop, only the notes inside the loop are chained. The length of the loop is maintained exactly. The beginning of the loop is placed at the beginning of the measure following the end of the destination track. The result is a track which sounds exactly like the loop, except that the loop only repeats itself a specified number of times.

Note: If both the source and destination tracks contain loops, the beginning of the source loop is "spliced" to the end of the destination loop. Both loops are removed, and the contents of the source loop are then repeated as specified by the chain repetition parameter.

- Track timbres must match for chaining.
- Press the **chain** button to begin the chaining process.
- Select the number of repetitions using the control knob.
- Select a source track by pressing its **track select** button.
- Select a destination track and execute chaining by pressing a **track select** button.

Mixing sequences



track volume
panel 2

Controlling keyboard volume

1. Press and hold track volume while you press a key on the keyboard.

The following message appears in the display window:

KEYBRD VOL: 100.0

The control knob is now assigned to keyboard volume.

2. Turn the control knob to adjust keyboard volume from 0 to 100%.

Keyboard volume settings are temporary and cannot be stored. When a new timbre is recalled to the keyboard, the keyboard volume is reset to 100.0.

Setting individual track volumes

1. Press start to listen to the sequence while you adjust the track volumes.
2. Press and hold track volume.
3. Press a track select button.

The **track volume** button lights and the display window shows

TRK [number] VOL 100.0

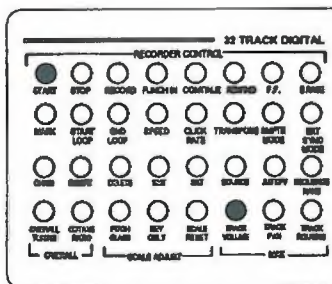
The control knob is assigned to the selected track's volume.

4. Adjust the track volume by turning the control knob.

You hear the volume change as the adjustment is made.

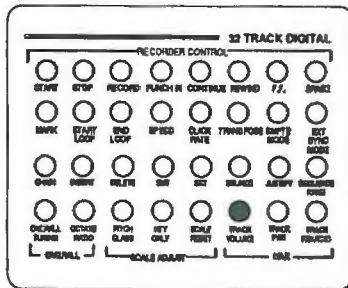
Track volume settings are stored with the sequence.

The track volume is a fixed setting in this procedure. The Memory Recorder does not record control knob adjustments made to track volume during the recording of a sequence. It records only the current setting when the sequence is saved. To control track volume during recording see "Preparing for automated mixing" and "Performing an auto-mix."



*start, track volume
panel 2*

Mixing sequences (con't)



track volume
panel 2

Reassigning track volume control to keyboard

After setting individual track volumes, the track volume control is assigned to the last track adjusted. You then want to reassign the track volume control to the keyboard.

1. Press and hold track volume.
2. Press any key on the keyboard.

Preparing timbres for automated mixing

Any track requiring a change in volume level during the sequence can have its timbre set up for auto-mixing.

1. Select a track for auto-mixing.
2. Bring the track timbre to the keyboard using the **skt** and **track select** buttons (see the section "Working with tracks").
3. Route an expression input controller to track volume as described in the section "Adding real-time effects." It may be advisable to route the **overwrite** button to the selected controller so that controller movements can be overwritten (see the section "Overwriting controller movements").
4. Place the timbre back on the track using the **smt**, **track select** and **skt** buttons.

The track is now set up for auto-mixing. The real-time effects controller movements adjust the timbre's volume. When you record, the movements are recorded on the track. You may perform the mix for this track immediately or repeat this process for any tracks whose levels must change during playback.

Mixing sequences (con't)

Performing an auto-mix

1. Select a track to be mixed.

The keyboard timbre and the track timbre must match. If you have set up several tracks for auto-mixing, you must recall the selected track's timbre to the keyboard using the *skt* button.

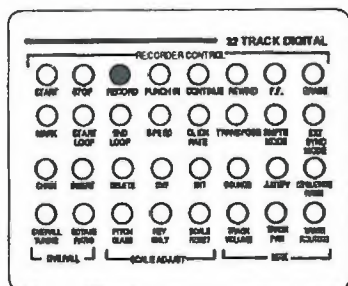
2. Solo any tracks to be monitored during mixing.
3. Solo the track on which controller movements are to be recorded.

The selected track button begins blinking.

This is a precautionary measure. If you have recorded multiple tracks using the same timbre, the first track is automatically selected when you press *record*.

4. Press *record*.

The sequence begins playing. Controller movements adjusting track volume are recorded on the selected track.



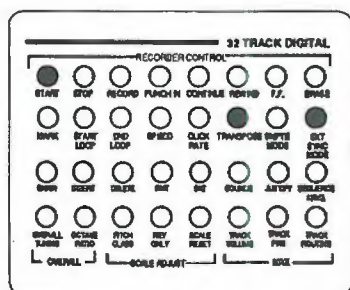
record
panel 2

- When the track volume button is lit, the control knob controls the volume of the keyboard or selected track.
- When you first enter the system, the track volume button controls the keyboard.
- To move volume control to a track, press and hold the track volume button while you press a track select button.
- To return volume control to the keyboard press and hold the track volume button while you press any key on the keyboard.
- All track volume settings are stored with the sequence. Keyboard volume settings are temporary and cannot be stored. When a new timbre is recalled to the keyboard, the keyboard volume is reset to 100.0.
- To patch track volume to a controller, recall the timbre to the keyboard using *skt*. Hold the real-time effect controller button and press track volume. Replace timbre on track using *smt, skt*. Press record to record volume changes.
- To overwrite controller movements already on the track, hold *overwrite* and press a real-time effects controller button. When you press *record*, track volume changes are overwritten.

Stepping and step editing

The keyboard triggering feature steps you through your sequence one beat or even one note at a time. Stepping and step editing can be done with either the Music Notation or the Recorder Display (see the *Sequence Editor* manual).

When step editing, be sure there is no input to the ext clock input jack on the computer control panel.



start, transpose,
ext sync mode
panel 2

Stepping through a sequence

1. With a sequence in the Memory Recorder, press the **ext sync mode** button twice so that it is blinking. The display window shows

0 MILLISEC
EXT BEAT SYNC

- ## 2. Press transpose.

The step mode is established.

3. Press start once or twice.

The display window shows

0 MILLISEC
M 0:0

Since the Memory Recorder is in the external sync mode, it is waiting for a trigger pulse.

4. Press C3 (middle C) on the keyboard to step through the sequence.

Each time C3 is pressed, a trigger pulse is sent to the external sync input and the next note of the sequence sounds.

While in the keyboard triggering mode you can use **f.f.** and **rewind** to move about your sequence as usual.

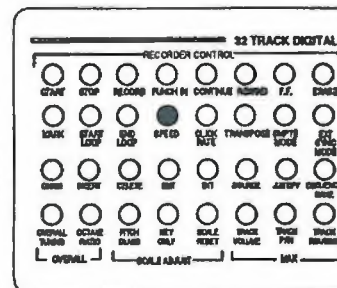
Note: Since the transpose function is active, pressing any key other than C3 transposes the sequence or any soloed track in addition to the stepping process. Should this happen, press C3 again to return the sequence normal.

Changing the speed of a step

The sequence proceeds from one step to the next at the tempo set using the speed control setting. You can vary this tempo using the speed button.

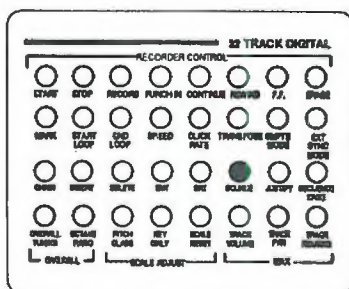
1. Press **speed**.
2. Dial in a new speed setting with the control knob.

Return the speed to the default setting of 1.000 by pressing the **speed** button when it is lit.



*speed
panel 2*

Stepping and step editing (con't)



*bounce
panel 2*

Changing the size of a step

The size of a step is determined by the setting of the click-rate multiplier.

To change the click-rate multiplier:

1. Press and hold the **bounce** button.

The display window shows the current click-rate multiplier setting.

2. Use the control knob to set the click-rate multiplier to any value between 1 and 16.

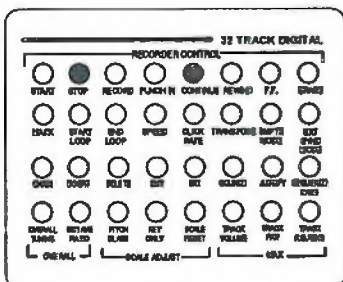
If the click-rate multiplier is set to 1, the size of a step is one beat. Larger multiplier settings yield smaller steps.

The value of the click-rate multiplier is the number of keystrokes required to step from one click to the next.

***Click-rate
multipliers and
step size***

click-rate multiplier	step size
1	one beat
2	1/2 beat
3	1/3 beat
4	1/4 beat
12	1/12 beat
16	1/16 beat

Stepping and step editing (con't)



*stop, continue
panel 2*

Stuck notes

Notes which are held for periods longer than one step (keystroke) sound until the step containing the end of the note is reached.

To continue beyond a stuck note:

1. Press **stop**.

The stuck note stops sounding.

2. Press **continue**.

3. Play a note on the keyboard.

The next note sounds.

The stepping function with the terminal displays

The stepping function responds identically with both the Music Notation and Recorder Displays.

1. With a sequence in the Memory Recorder, press **transpose**, then **ext sync mode** twice.

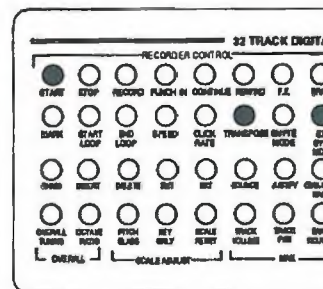
The **transpose** button lights, the **ext sync mode** button blinks, and the display window shows

0.0 MILLISEC
EXT BEAT SYNC

2. From the Main Menu, select the Music Notation or Recorder Display.
3. Set the display parameters so that the sequence is displayed properly.
4. Press **start** on the keyboard control panel or <ctrl-p> on the terminal keyboard to start the sequence.
5. Press C3 on the keyboard to trigger each step.

The song position pointer (the vertical bar in the Music Notation Display, the asterisk in the Recorder Display) moves from note to note.

When the end of a recorded track is reached, the song position pointer on that track stops on the last recorded note of the track, even though the sequence continues to play. The true position of the song position pointer is the song position pointer having the largest starting time value.



*start, transpose,
ext sync mode
panel 2*

Stepping and step editing (con't)

Moving the song position pointer

All terminal commands in the Music Notation and Recorder displays which control movement of the song position pointer respond to the stepping function. You may use the following commands:

start	<ctrl-p>
stop	<ctrl-e>
continue	<ctrl-c>
rewind	<ctrl-r>
fast forward	<ctrl-f>

The rewind or f.f. buttons on the keyboard control panel do not respond to the stepping function. These buttons operate at their normal speeds. Stepping backward or forward in these modes can only be achieved using the terminal commands <ctrl-r> and <ctrl-f>.

Turning the stepping function on and off

Sometimes it is desirable to perform a transpose while in the external beat sync mode. In order to do this, you must turn the stepping function off.

1. Press and hold the **transpose** button.
2. Press **stop**.

The display window shows

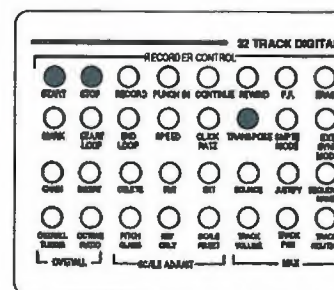
TRANPOSE
TRIGGER: OFF

To turn the stepping function back on:

1. Press and hold the **transpose** button.
2. Press **start**.

The display window shows

TRANPOSE
TRIGGER: ON



*start, stop, transpose
panel 2*